



**Cumulative Results**

Locations	67
Collected	972
Tested	930

**Influenza A 14**

A(H1N1)pdm09	8
A(H3N2)	6
A/not subtyped	0

**Influenza B\* 9**

B	9
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**Other Respiratory  
Pathogens 287**

Adenovirus	46
<i>Bordetella pertussis</i>	1
<i>Chlamydomonas pneumoniae</i>	0
Coronavirus	13
Human Metapneumovirus	1
<i>Mycoplasma pneumoniae</i>	23
Parainfluenza	62
RSV	25
Rhino/Enterovirus	84
Non-influenza Co-infections	32

Lab data are current as of 28 December 2015.  
Results are preliminary and may change as  
more results are received.  
\*Influenza B lineages will be reported in the  
periodic molecular sequencing reports.

**Respiratory Highlights**

**13 - 26 December 2015 (Surveillance Weeks 50 & 51)**

- During 13 - 26 December 2015, a total of 140 specimens were collected and received from 40 locations. Results were finalized for 111 specimens from 34 locations. During Week 50, two influenza A(H1N1)pdm09 viruses and one influenza B virus were identified.
- During Week 50 (13 - 19 December 2015), influenza activity increased slightly in the United States. **Viral Surveillance:** The most frequently identified influenza virus type reported by public health laboratories in Week 50 was influenza A, with influenza A(H1N1)pdm09 viruses predominating. **Pneumonia and Influenza (P&I) Mortality:** The proportion of deaths attributed to P&I was below their system-specific epidemic threshold in both the NCHS Mortality Surveillance System and the 122 Cities Mortality Reporting System. **Influenza-Associated Pediatric Deaths:** One influenza-associated pediatric death was reported. **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.2%, which is above the national baseline of 2.1%. Four of 10 regions reported ILI at or above region-specific baseline levels. One state experienced high ILI activity; Puerto Rico and two states experienced moderate ILI activity; New York City and three states experienced low ILI activity; 44 states experienced minimal ILI activity; and the District of Columbia had insufficient data. **Geographic Spread of Influenza:** The geographic spread of influenza in Guam, Puerto Rico, and five states was reported as regional; the U.S. Virgin Islands and 14 states reported local activity; the District of Columbia and 27 states reported sporadic activity; and four states reported no influenza activity. (CDC FluView Week 50, cited 29 December 2015).

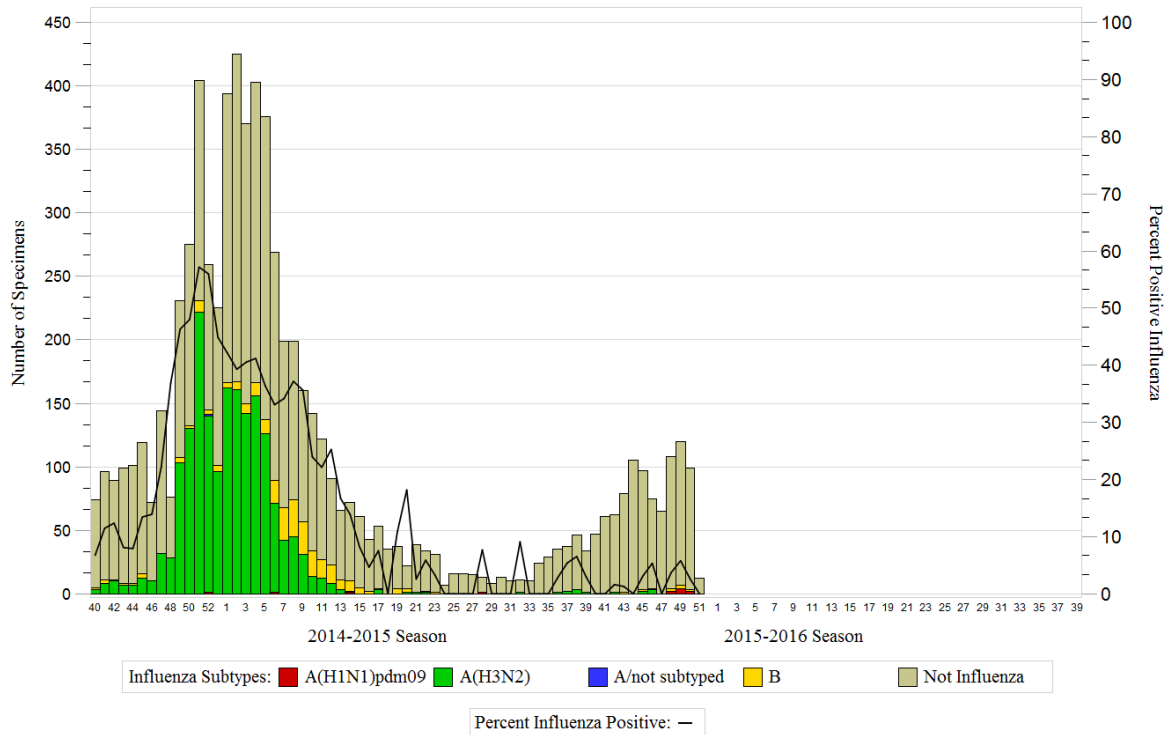
**Table 1. Results by region and location for specimens collected during Weeks 50 & 51**

		A(H1N1)pdm09	B	Adenovirus	Coronavirus	M. pneumoniae	Parainfluenza	RSV	Rhino/Enterovirus	Adeno & Corona	Adeno & RSV & Rhino/Enterovirus	Adeno & Rhino/Enterovirus	B. pertussis & M. pneumoniae & Para & Rhino/Enterovirus	C. pneumoniae & M. pneumoniae	C. pneumoniae & Rhino/Enterovirus	RSV & Rhino/Enterovirus	No Pathogen	Total
Region*																		
PACOM	Elison AFB, AK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Yokota AB, Japan	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	3
Region 2	JB McGuire-Dix-Lakehurst, NJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	USMA - West Point, NY	-	-	1	1	-	-	-	-	-	-	1	-	-	-	-	5	9
Region 3	JB Langley-Eustis, VA	-	-	2	1	-	-	2	-	-	-	-	-	-	-	-	3	8
	NCRM - Walter Reed NMMC, MD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	NMC Portsmouth, VA	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Region 4	Columbus AFB, MS	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	Eglin AFB, FL	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	2	6
	Ft Bragg, NC	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2
	Ft Campbell, KY	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
	Hurlburt Field, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Keesler AFB, MS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Maxwell AFB, AL	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	3
	Moody AFB, GA	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	3
	NH Jacksonville, FL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Seymour Johnson AFB, NC	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	4	6
	Shaw AFB, SC	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2
Region 5	Scott AFB, IL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Region 6	Altus AFB, OK	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	4	6
	Sheppard AFB, TX	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3	5
	Tinker AFB, OK	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1	3
	Vance AFB, OK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Region 7	McConnell AFB, KS	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	2	4
	Offutt AFB, NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 8	Ellsworth AFB, SD	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	2
	FE Warren AFB, WY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	Hill AFB, UT	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	2	4
	Minot AFB, ND	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2
	Peterson AFB, CO	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Region 9	Luke AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Nellis AFB, NV	2	1	-	2	-	-	-	-	-	-	-	-	-	-	1	7	13
	Travis AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Region 10	NH Bremerton, WA	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	4	6
Total		2	1	6	7	2	5	7	7	1	1	3	1	1	1	1	65	111

\*CONUS locations are based on Health & Human Services regions. Other locations are defined by COCOM.

## Laboratory Results - Cumulative for Season

**Graph 1.** Percent influenza positive by week: 2014-2015 surveillance year and through Week 51 of the 2015-2016 surveillance year



Note: Dual influenza co-infections are excluded from this graph. Specimens with pending results are used in the denominator to calculate percent positive, but are not displayed in the graph.

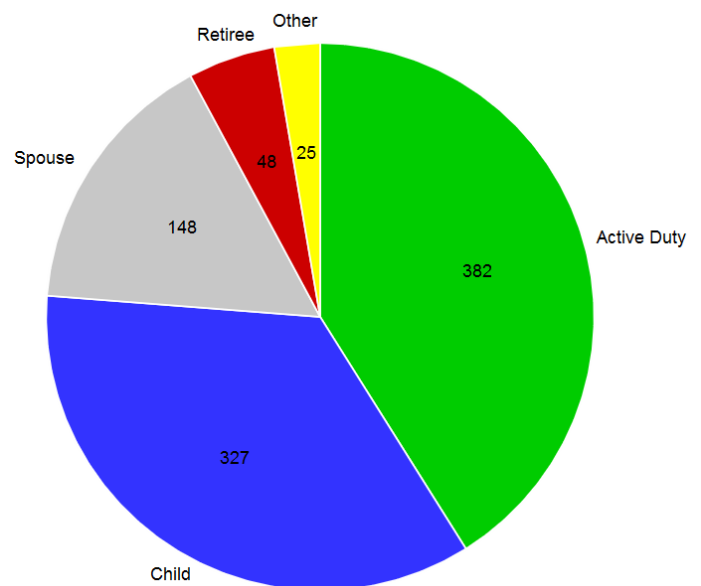
**Table 2.** ILI by age group for the 2015-2016 surveillance year through Week 51

Age Group	Frequency	Percent
0-5	206	22.15
6-9	53	5.70
10-17	70	7.53
18-24	169	18.17
25-44	330	35.48
45-64	81	8.71
65+	21	2.26

### Demographic Summary

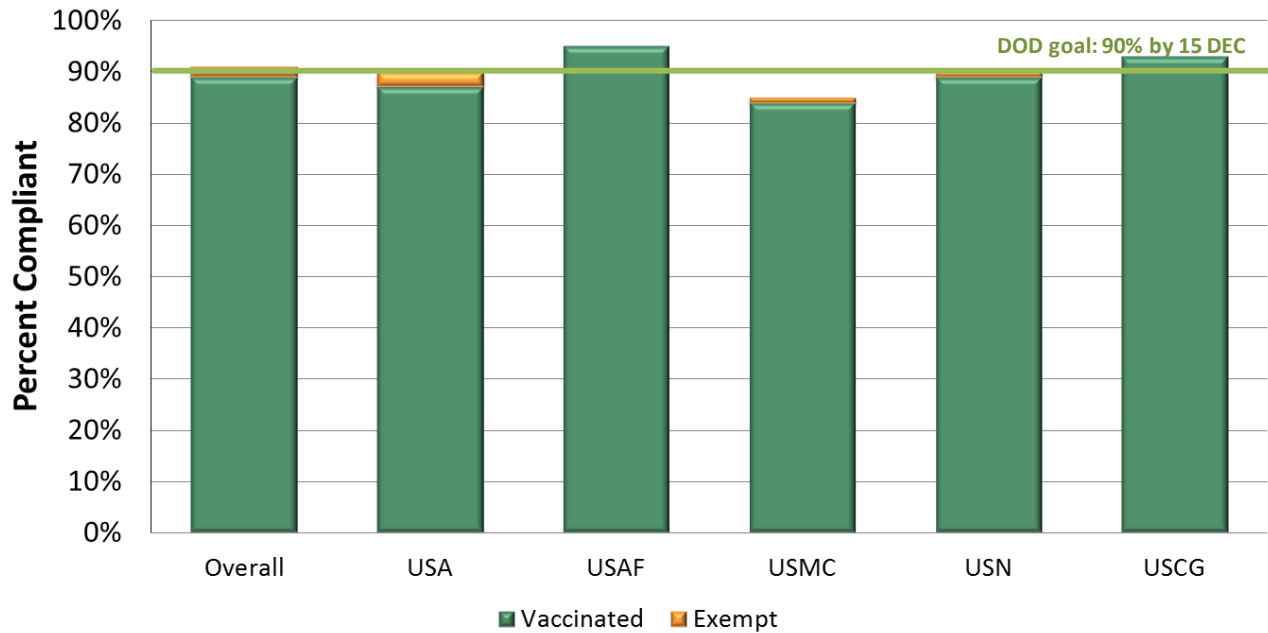
Of 930 ILI cases, 382 are service members (41.1%), 327 are children (35.1%), 148 are spouses (15.9%), and 73 (7.9%) are retirees and other beneficiaries. The median age of ILI cases with known age (n=930) is 23 (range 0, 91).

**Graph 2.** ILI by beneficiary status for the 2015-2016 surveillance year through Week 51



# DoD Global, Laboratory-Based, Influenza Surveillance Program

**Graph 3. Influenza Immunization Status by Service**

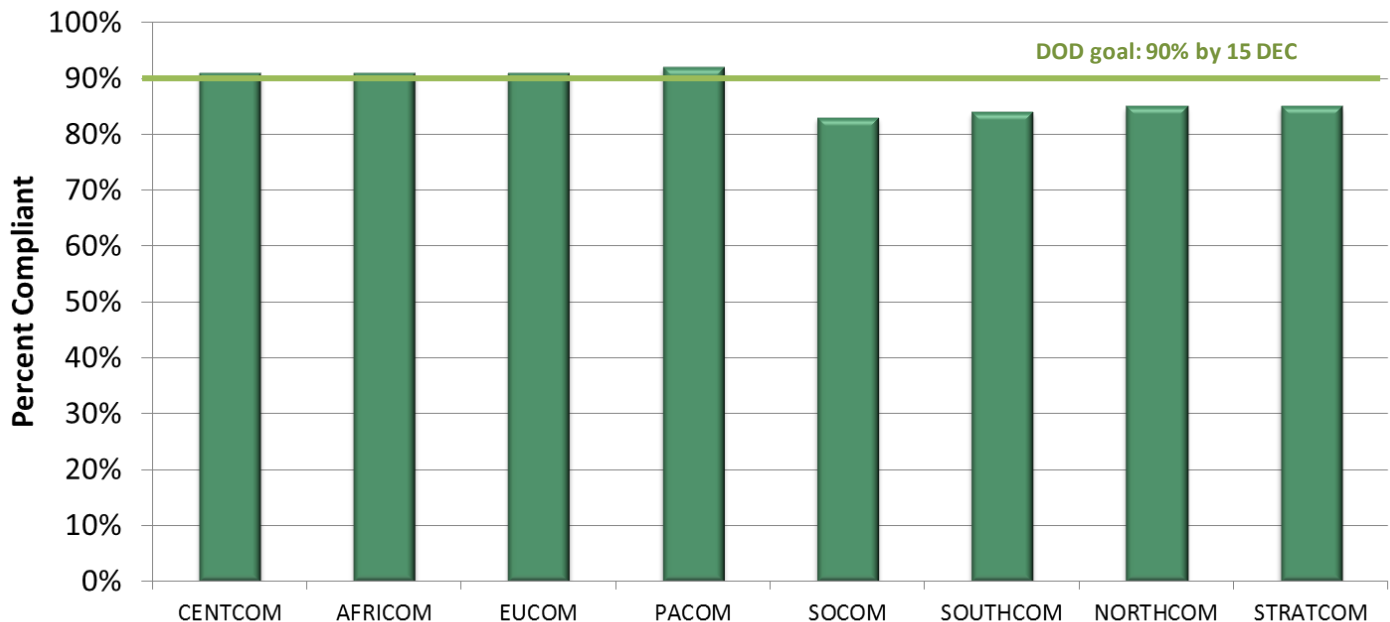


As of 22 DEC

No exemptions noted reflect less than 1% of force exempted

Data Sources: Army - MEDPROS, Air Force - ASIMS, Navy, Marine Corps & Coast Guard - MRRS

**Graph 4. Influenza Immunization Status by Combatant Command**

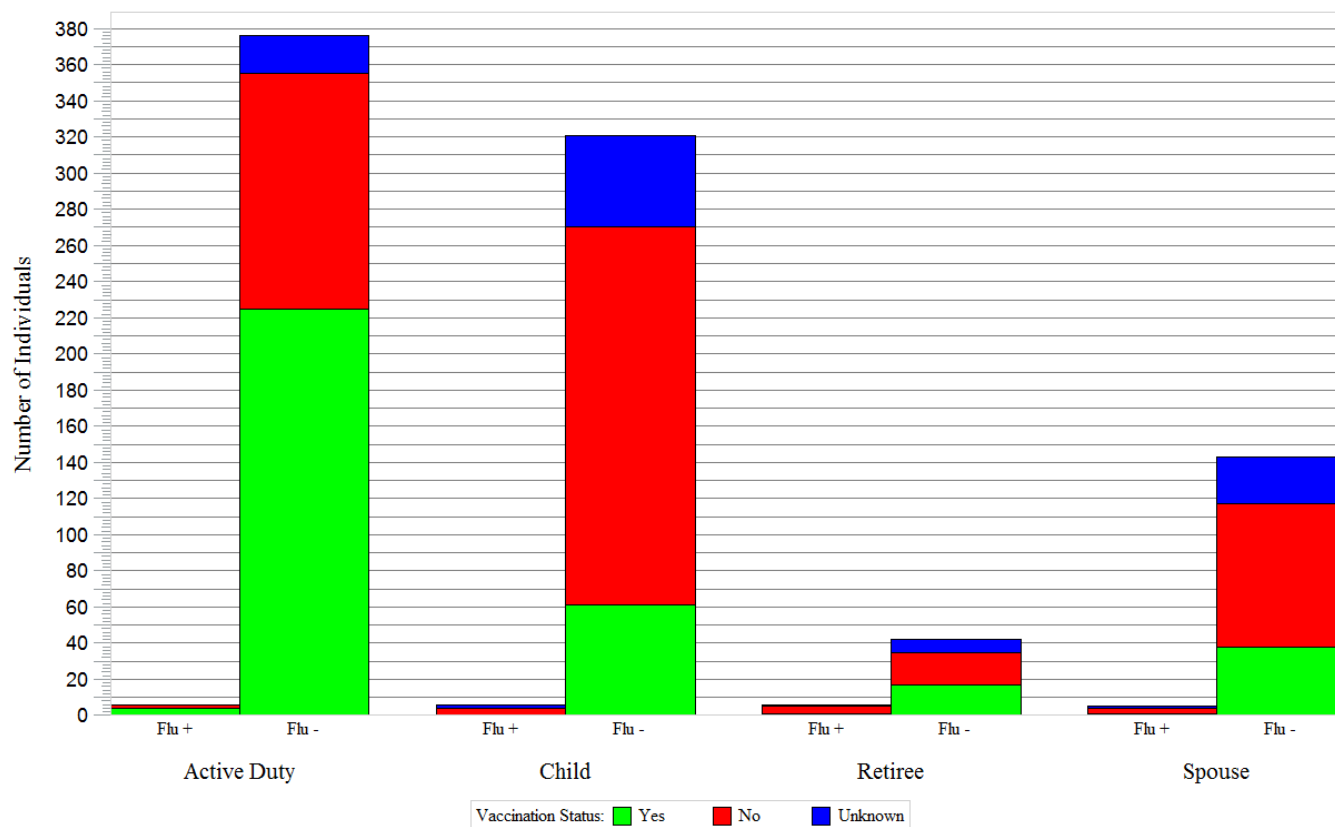


% Compliant = Vaccinated + Exemptions

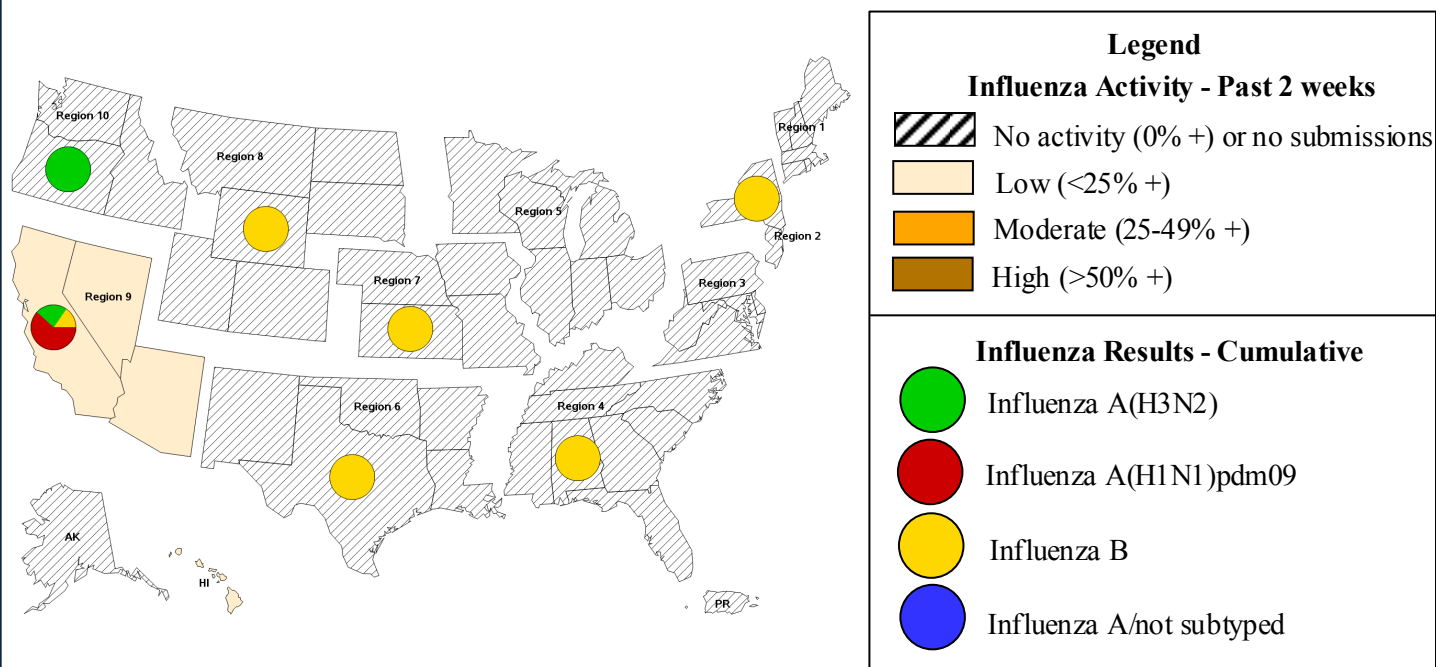
Data Source: DMDC & DEERS; IMZ data as of 22 DEC; personnel data as of 1 DEC; AFRICOM HQ personnel in Europe included in AFRICOM total.

Courtesy of DHA Immunizations Healthcare Branch

**Graph 5.** Vaccination status by beneficiary type for the 2015-2016 surveillance year through Week 51



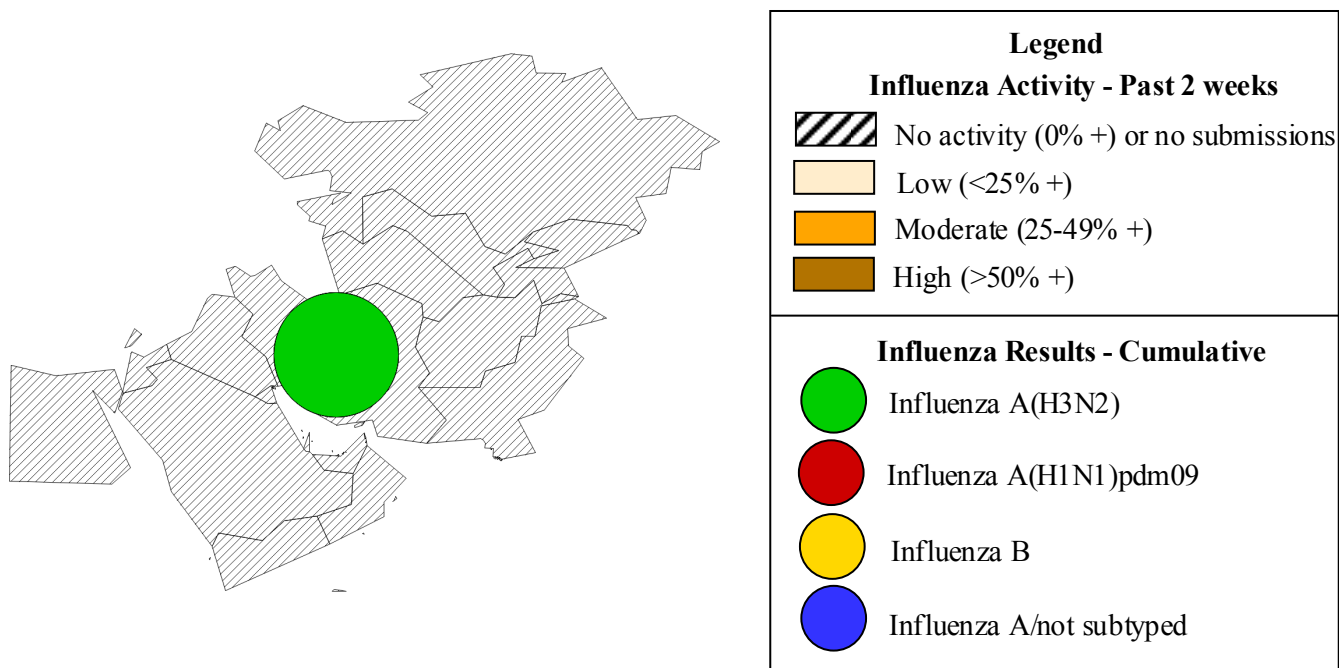
**Map 1.** Influenza subtypes and activity level by region for the 2015-2016 surveillance year through Week 51



**Map 2.** Influenza subtypes and activity level by country for the 2015-2016 surveillance year through Week 51 (Pacific)



**Map 3.** Influenza subtypes and activity level for CENTCOM for the 2015-2016 surveillance year through Week 51



# DoD Global, Laboratory-Based, Influenza Surveillance Program

## Laboratory Results—Through Current Surveillance Week 51

**Table 3.** Cumulative results by region and location for specimens collected during the 2015-2016 surveillance year

Region*		A(H1N1)pdm09	A(H3N2)	B	Adenovirus	B. pertussis	Coronavirus	hMPV	M. pneumoniae	Parainfluenza	RSV	Rhinovirus/ Enterovirus	Non-Influenza Co-Infection	No Pathogen	Total
PACOM	CFA Okinawa, Japan	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Eielson AFB, AK	-	1	-	-	-	-	-	-	-	-	-	-	4	5
	JB Elmendorf-Richardson, AK	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	JR Marianas - Andersen AFB, Guam	-	1	-	-	-	-	-	-	-	-	-	1	-	2
	Kadena AB, Japan	-	-	-	-	-	-	-	-	-	-	2	-	9	11
	Misawa AB, Japan	-	-	-	-	-	-	-	-	-	1	2	-	4	7
	Osan AB, South Korea	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Yokota AB, Japan	-	-	-	-	-	-	-	1	1	1	-	1	12	16
Region 1	Hanscom AFB, MA	-	-	-	1	-	-	-	-	2	-	-	-	9	12
	NHCNE Newport, RI	-	-	-	-	-	-	-	-	-	-	1	-	3	4
	USCG Academy, CT	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Region 2	Ft Drum, NY	-	-	-	-	-	-	-	-	-	-	2	-	3	5
	JB McGuire-Dix-Lakehurst, NJ	-	-	-	-	-	-	-	1	-	-	4	-	5	10
	USMA - West Point, NY	-	-	1	2	-	1	-	2	1	1	1	3	47	59
Region 3	Dover AFB, DE	-	-	-	-	-	-	-	-	-	-	-	-	3	3
	JB Anacostia-Bolling, DC	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	JB Andrews, MD	-	-	-	-	-	-	-	1	-	-	-	-	-	1
	JB Langley-Eustis, VA	-	-	-	3	-	1	-	-	3	4	2	-	7	20
	NCRM - Walter Reed NMMC, MD	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	NMC Portsmouth, VA	-	-	-	1	-	-	-	5	1	1	2	1	13	24
Region 4	CGS Mobile, AL	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Columbus AFB, MS	-	-	-	-	-	-	-	-	-	-	2	-	10	12
	Eglin AFB, FL	-	-	-	3	-	-	-	-	4	2	2	-	8	19
	Ft Bragg, NC	-	-	-	1	-	-	-	-	-	2	-	1	13	17
	Ft Campbell, KY	-	-	-	-	-	1	-	-	2	-	3	-	12	18
	Hurlburt Field, FL	-	-	-	-	-	-	-	-	-	-	-	1	5	6
	Keesler AFB, MS	-	-	-	-	-	-	-	1	-	-	2	-	16	19
	MacDill AFB, FL	-	-	-	-	-	-	-	-	1	1	-	-	1	3
	Maxwell AFB, AL	-	-	-	1	-	-	-	-	1	2	1	-	15	20
	Moody AFB, GA	-	-	2	4	-	1	-	1	2	2	7	1	12	32
	NH Camp Lejeune, NC	-	-	-	-	-	-	-	-	-	1	-	-	2	3
	NH Jacksonville, FL	-	-	-	2	-	-	-	-	1	-	-	-	3	6
	Robins AFB, GA	-	-	-	-	-	-	-	1	1	1	-	-	4	7
	Seymour Johnson AFB, NC	-	-	-	1	-	-	-	-	-	-	-	2	5	8
	Shaw AFB, SC	-	-	-	-	-	1	-	2	-	-	4	2	6	15
	Tyndall AFB, FL	-	-	-	-	-	1	-	-	-	-	-	1	1	3
Region 5	Scott AFB, IL	-	-	-	2	-	-	-	-	1	-	1	-	15	19
	Wright-Patterson AFB, OH	-	-	-	1	-	-	-	-	-	-	2	-	1	4
Region 6	Altus AFB, OK	-	-	-	2	-	-	-	-	2	-	-	2	23	29
	Barksdale AFB, LA	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Cannon AFB, NM	-	-	-	1	-	-	-	-	-	-	1	-	13	15
	Laughlin AFB, TX	-	-	-	-	-	1	-	-	-	-	-	-	2	3
	Little Rock AFB, AR	-	-	-	-	-	1	-	-	-	-	-	-	5	6
	Sheppard AFB, TX	-	-	2	3	-	-	1	3	1	-	5	1	36	52
	Tinker AFB, OK	-	-	-	1	-	-	-	1	4	1	3	5	17	32
	Vance AFB, OK	-	-	-	-	-	-	-	-	1	-	1	-	25	27
Region 7	Ft Leavenworth, KS	-	-	1	-	-	-	-	-	-	-	1	-	8	10
	McConnell AFB, KS	-	-	-	1	-	-	-	2	2	-	3	1	20	29
	Offutt AFB, NE	-	-	-	2	-	-	-	-	3	-	1	-	23	29
Region 8	Ellsworth AFB, SD	-	-	-	1	-	-	-	1	3	-	-	1	16	22
	FE Warren AFB, WY	-	-	-	-	1	-	-	-	2	-	2	-	14	19
	Hill AFB, UT	-	-	1	1	-	-	-	1	-	-	6	-	26	35
	Malmstrom AFB, MT	-	-	-	-	-	-	-	-	-	-	1	-	1	2
	Minot AFB, ND	-	-	-	-	-	-	-	-	1	-	1	-	1	3
	Peterson AFB, CO	-	-	-	1	-	1	-	-	-	-	1	-	9	12
	USAF Academy, CO	-	-	-	-	-	-	-	-	4	-	1	-	9	14
	Davis-Monthan AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	6	6
Region 9	Edwards AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	Luke AFB, AZ	-	-	-	-	-	-	-	-	-	-	-	-	6	6
	Nellis AFB, NV	8	2	2	6	-	2	-	-	7	2	5	3	31	68
	Travis AFB, CA	-	1	-	2	-	1	-	-	3	-	6	2	22	37
	USCG Island Alameda, CA	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	Vandenberg AFB, CA	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	Fairchild AFB, WA	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Region 10	JB Lewis-McChord, WA	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Mt Home AFB, ID	-	-	-	-	-	-	-	-	-	-	-	-	4	4
	NH Bremerton, WA	-	1	-	3	-	1	-	-	9	2	6	3	30	55
<b>Total</b>		8	6	9	46	1	13	1	23	62	25	84	32	620	930

\*CONUS locations are based on Health & Human Services regions. Other locations are defined by COCOM.



## Background

The DoD-wide program was established by the Global Emerging Infections Surveillance and Response System (GEIS) in 1997. The surveillance network includes the U.S. Air Force School of Aerospace Medicine (USAFSAM) (sentinel site respiratory surveillance), the Naval Health Research Center (recruit and shipboard population-based respiratory surveillance), the Naval Medical Research Unit (NAMRU-3) in Cairo, Egypt, the Naval Medical Research Unit (NAMRU-2) in Phnom Penh, Cambodia, the Armed Forces Research Institute of Medical Sciences (AFRIMS) in Bangkok, Thailand, the Naval Medical Research Unit-6 (NAMRU-6) in Lima, Peru, and the United States Army Medical Research Unit-Kenya (USAMRU-K) located in Nairobi, Kenya. This work is supported by the Air Force and the Division of Global Emerging Infections Surveillance and Response System (GEIS) Operations, a Division of the Armed Forces Health Surveillance Center (AFHSC).

## Sentinel Site Surveillance at USAFSAM

In 1976, the U.S. Air Force Medical Service began conducting routine, global, laboratory-based influenza surveillance. Air Force efforts expanded to DoD-wide in 1997. USAFSAM manages the surveillance program that includes global surveillance among DoD beneficiaries at over 80 sentinel sites (including deployed locations) and many non-sentinel sites (please see map on the left). Unique sentinel sites include three DoD overseas medical research laboratories (AFRIMS, NAMRU-6, USAMRU-K) and the US Army Public Health Command Region South (PHCR-S). These sites collect specimens from local residents in surrounding countries that may not otherwise be covered in existing surveillance efforts.

Since the 2006-2007 season, Landstuhl Regional Medical Center (LRMC) has served EUCOM as a USAFSAM contributing laboratory. The initiative seeks to provide more timely results and efficient transport of specimens.

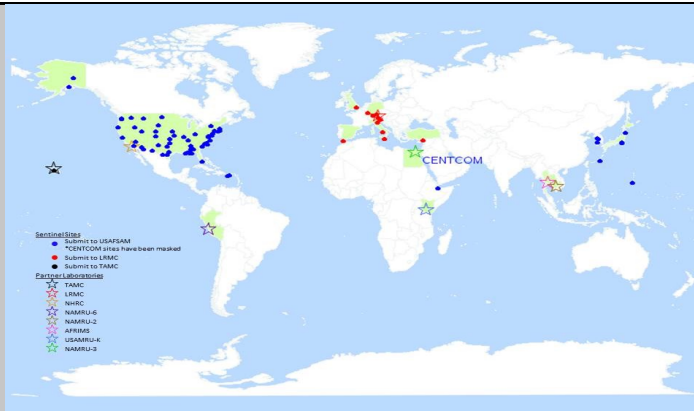
For an expanded view of this report, visit our website. Also available on the website is a list of previous weekly surveillance reports, program information (including an educational briefing and instruction pamphlets for clinic staff), and an overview of historical data. Please visit the AFHSC/GEIS website for an overview of influenza surveillance at all collaborating organizations.

**Errata:** One influenza A(H3N2) specimen collected during Week 44 (McConnell AFB, KS) has been sequenced and determined to be the vaccine strain. The individual was vaccinated with LAIV 5 days prior to specimen collection. The report now reflects this specimen as being 'No Pathogen Detected'.

[DoD Global, Laboratory-Based,  
Influenza Surveillance Program](https://gumbo2.wpafb.af.mil/epi-consult/influenza/index.cfm)  
[https://gumbo2.wpafb.af.mil/  
epi-consult/influenza/index.cfm](https://gumbo2.wpafb.af.mil/epi-consult/influenza/index.cfm)

For Public Health Services  
937-938-3196; DSN 798-3196

For Laboratory Services  
937-938-3163; DSN 798-3163



## Collaborating Partners

In addition to all participating DoD military sentinel sites, several collaborating partners (described above) may be further understood by reviewing the partner's website.

